PARACANTHORHYNCHUS GALAXIASUS, A NEW GENUS AND SPECIES OF ACANTHOCEPHALA FROM A FISH. AUSTRALIAN ACANTHOCEPHALA No. 12

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About 40 specimens of a fish *Galaxias attenuatus* (Jenyns) that were collected in some fresh water streams and pools on the property of Mr. B. S. Hyde near Port Lincoln, South Australia, were brought to me for identification by Dr. P. G. Martin of the University of Adelaide. The fish were found to be heavily infested with acanthocephalans which differ from previously described genera and species. If one uses Golvan's key (Golvan, 1960b: 713) they fall into the class Palaeacanthocephala and the family Cavisomidae.

Paracanthorhynchus n.g.

Diagnosis: Acanthocephala with characteristics of the subfamily Vancleaveinae Golvan, 1960a. Parasitic in small intestine of fresh water fish. Body small. Trunk subcylindrical or fusiform. Body spines restricted to a small triangular area on the anterior and ventral surface of the trunk. Arrangement of body spines same in both sexes. Introvert of short to moderate length, cylindrical and with hooks that are not differentiated dorso-ventrally. Hooks with simple rooting processes. Sheath double-walled and cerebral ganglion placed in its middle. Lemnisci as long as or a little longer than the sheath. Male organs occupy posterior half or two-thirds of the trunk. Testes ellipsoidal and placed behind each other. Four cement glands, short and pyriform. Eggs slender with polar prolongations of the middle shell. Type species: *Paracanthorhynchus galaxiasus*.

Paracanthorhynchus galaxiasus n.g., n.s.p.: figs. 1-6

Small slender worms. Trunk subcylindrical with maximum width in the anterior third of worm. Body of preserved specimens may be straight but body of living specimens usually slightly S-shaped. Female noticeably larger than male and the posterior part of its trunk more slender.

Trunk: Length of male 2·7-4·2 mm and maximum width 0·5-0·6 mm; length of female 4·5-8·0 mm and maximum width 0·5-0·9 mm. Small triangular area of body spines on anterior ventral region of trunk of both sexes, the spination scarcely extending to the dorsal surface of the trunk. Spines comparatively large, 0·2-0·3 mm long. No genital spines.

Introvert: Cylindrical and not long. Length of armed section in male 0·32-0·36 mm and maximum width 0·12-0·15 mm. Corresponding measurements in female are 0.32-0.38 mm and 0·13-0·18 mm. Unarmed truncated collar or neck

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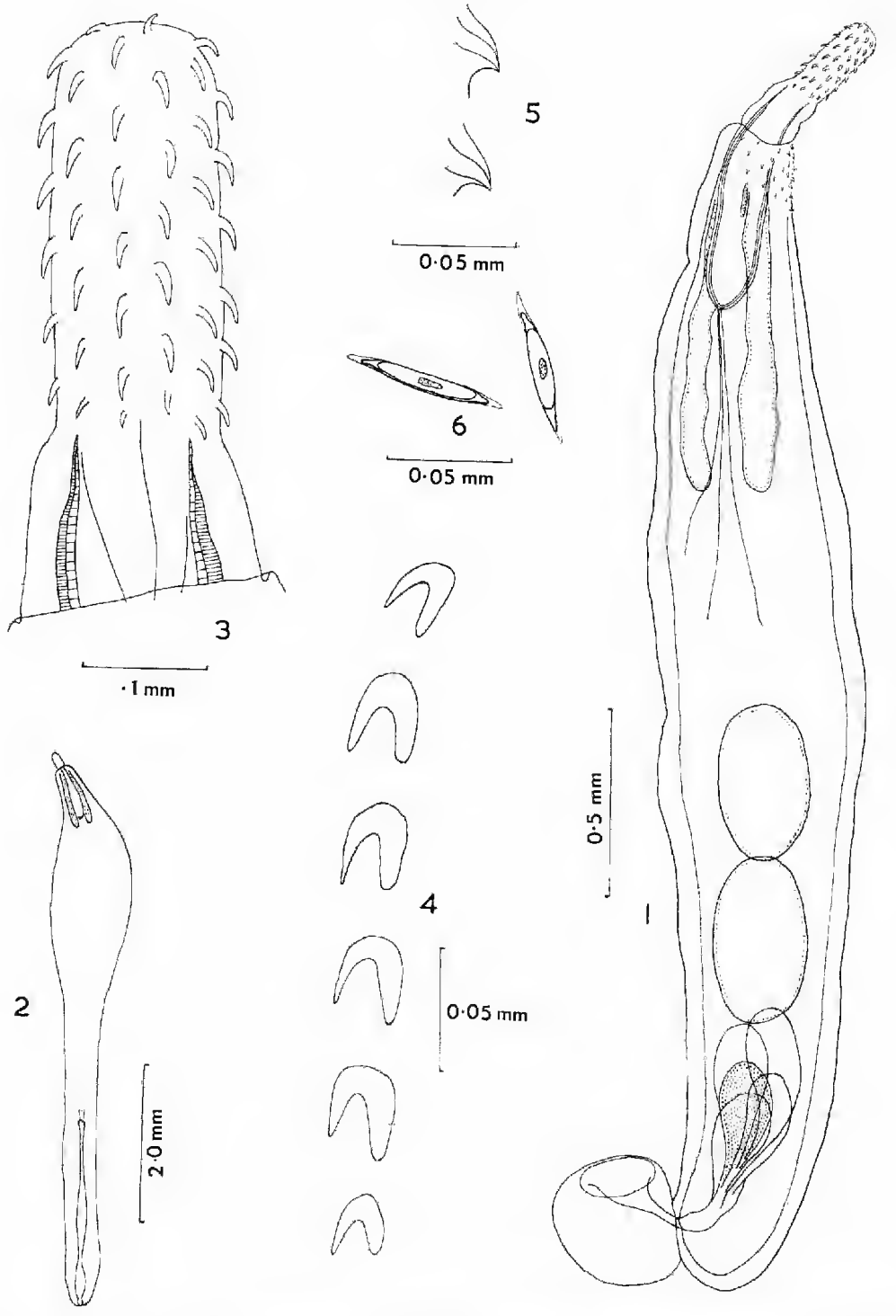

Figs. 1-6. *Paracanthorhynchus galaxiasus*. 1 male, 2 female. 3 introvert, 4 some hooks from the introvert, 5 body spines, 6 eggs.

0·10-0·15 mm long. Armed with 12 rows of 7 hooks per row, the size and shape of some of the hooks is shown in Fig. 4. Last hook of each row is smallest. No marked difference observed in size of hooks on dorsal and ventral surfaces of introvert.

Sheath: Arises just posterior to introvert hooks. Double walled. Length about 0·6-0·8 mm and maximum width 0·19-0·23 mm. Ganglion present in mid-region of sheath.

Lemnisci: Rather stout, about one to one and a half times as long as sheath.

Male structures: Testes, ellipsoidal, 0·35-0·45 mm long and in tandem.

Cement glands: Four, club-shaped and pressed closely together.

Male aperture: Appears to be subterminal in some but terminal in fully extended specimens.

Female structures: Uterine bell about 0·4 mm long and uterus and vagina about 2·0-2·5 mm long.

Eggs: Slender. Outermost covering very thin and collapses easily 55-67 μ long and 7-11 μ wide with polar prolongations of the middle shell.

Type host: *Galaxias attenuatus* (Jenyns).

Type locality: Coomunga, near Port Lincoln, South Australia.

Holotype and paratypes: Australian Museum, Sydney.

Manter (1955: 67) reported the presence of acanthocephalans of the genus *Acanthocephalus* from *Galaxias attenuatus* in New Zealand. Parasites of this genus possess six cements glands and lack body spines. Consequently Manter's specimens must be different from the South Australian specimens.

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